

# RECEIVED DEC 1 8 2002

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE Chnology Center 2100

In re application of

Kenneth J. Hines

Application No. 09/888,061

Filed: June 21, 2001

For: EVOLUTION DIAGRAMS FOR DEBUGGING DISTRIBUTED

EMBEDDED SOFTWARE

**APPLICATIONS** 

Date: December 13, 2002

I HEREBY CERTIFY THAT THIS CORRESPONDENCE
IS BEING DEPOSITED WITH THE UNITED STATES
POSTAL SERVICE AS FIRST CLASS MAIL IN AN
ENVELOPE ADDRESSED TO:
COMMISSIONER FOR PATENTS
WASHINGTON, DC 20231

Group Art Unit: 2122

N: December 13, 2002

Signature
Connie English
Typed Name

TRANSMITTAL LETTER

TO THE COMMISSIONER FOR PATENTS:

Enclosed for filing in the above-referenced application are the following:

- Supplemental Information Disclosure Statement
- [ Form PTO-1499, together with copies of cited references
- [ \( \) Return receipt postcard

The Commissioner is hereby authorized to charge any additional fees which may be required in connection with filing of these papers, or credit overpayment, to Account No. 19-4455. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

Kenneth J. Hines

Steven JaMunson

Registration No. 47,812

STOEL RIVES LLP

900 SW Fifth Avenue, Suite 2600

Portland, Oregon 97204-1268 Telephone: (503) 224-3380

Facsimile: (503) 220-2480

Attorney Docket No. 10488/10:1

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Typed Name

Examiner:

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SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT DEC 1 8 2002

TO THE COMMISSIONER FOR PATENTS:

Technology Center 2100

l.			s duty of disclosure, applicant presents for the Examiner's aments listed on the accompanying Form PTO-1449.
		Copies Copies they ar	of the documents are enclosed.  (a copy) of document(s) are (is) not enclosed because (1) are already of record in U.S. Pat. Application No, filed, on which this application relies for an earlier filing date under .C. § 120, and (2) any information disclosure statement filed in the aution of U.S. Pat. Application No, complies with 37 §§ 1.98(a) and (c). (37 C.F.R. § 1.98(d).)
2.	[]	copend	ant(s) draw(s) the Examiner's attention to the enclosed copy of ling U.S. Pat. Application No, filed, for, which is cited in this application.
3.	This ir a.	nformati [✓]	on disclosure statement is being submitted: Within three months of the filing date of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office action on the merits; or before the mailing of a first Office action after the filing of a request for continued examination under 37 CFR 1.114. (No statement under 37 CFR 1.97(e) is required.)
	b.	[]	After the period set forth in paragraph 1a, but before the mailing date of either a final action, a notice of allowance, or an action that otherwise closes prosecution in the application. (Check box i. or ii.)

		i.	[]	A \$180.00 information disclosure statement submission fee set forth in 37 CFR 1.17(p) is enclosed.
		ii.	[]	A statement specified by 37 CFR 1.97(e) is set forth below.
	c.	[]	before 1.97(e)	he mailing date of a final action or notice of allowance and on or payment of an issue fee. A statement specified by 37 CFR ) is set forth below. Enclosed is a \$180.00 information sure statement processing fee set forth in 37 CFR 1.17(p).
4.	[]	The att	orney o	or agent signing below hereby states that:
		[]	statem office	em of information contained in the information disclosure ent was first cited in a communication from a foreign patent in a counterpart foreign application not more than three months to the filing of the information disclosure statement; or
		[]	statem a coun signing inform known	ent was cited in a communication from a foreign patent office in terpart foreign application, and, to the knowledge of the person g the certification after making reasonable inquiry, no item of lation contained in the information disclosure statement was a to any individual designated in 37 CFR 1.56(c) more than three is prior to the filing of the information disclosure statement.
5.	[]	docum		forth below concise explanations of the relevance of each in the English language and/or selected documents in the age.
	·			Respectfully submitted,
				Kenneth J. Hines
				By Steven J. Murson

Registration No. 47,812

STOEL RIVES LLP 900 SW Fifth Avenue, Suite 2600 Portland, Oregon 97204-1268 Telephone: (503) 224-3380 Facsimile: (503) 220-2480

Attorney Docket No. 10488/10:1

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FORM PTO-1449 (REV. 7-80)

### U.S. DEPARTMENT OF GOMMERCE PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.	APPLICATION NO.
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INFORMATION DISCLOSURE CITATION (Uses several sheets if necessary)

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#### OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

AR	Ken Hines and Gaetano Borriello, "A Geographically Distributed Framework for Embedded System Design and Validation," DAC 98, June 15-19, 1998, San Francisco, CA USA, pp. 140-145.
AS	Gopalan Suresh Raj, "A Detailed Comparison of CORBA, DCOM, and Java/RMI," Web Cornucopia, wysiwyg://402/http://gsraj.tripod.com/misc/compare
ΑТ	"CORBA Overview," CORBA v2.0, July 1995, pp. 2-1 to 18-5

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Sheet 2 of 5

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ATTY. DOCKET NO. APPLICATION NO. 10488/10:1 09/888,061

NFORMATION DISCLOSURE CITATION (Uses several sheets if necessary)

APPLICANT

Kenneth J. Hines

FILING DATE GROUP

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	AS	Chr	istopi 343-3	her E	B. Borche	rt, "Organization a	and Manag	gement of Distributed Exe	cution Event Histo	ries For Real-Tir	ne Debuggi	ng," <i>IEEE</i>

**EXAMINER** 

(REV. 7-80)

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformation with MPEP609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Computer Systems Research Institute, University of Toronto, June 1994, pp. 123-141.

Mariano P. Consens, Masum Z. Hasan, Alberto O. Mendelzon, "Visualizing and Querying Distributed Event Traces with Hy+,"

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## U.S. DEPARTMENT OF GOMMERCE PATENT AND TRADEMARK OFFICE

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AR	Wentong Cai, Wendy J. Milne and Stephen J. Turner, "Graphical Views of the Behavior of Parallel Programs," Journal of Parallel and Distributed Computing, June 18, 1993, No. 2, Orlando, FL, USA, pp. 223-230.
AS	Matthew S. Jaffe, Nancy G. Leveson, Mats P.E. Heimdahl, et al., "Software Requirements Analysis for Real-Time Process-Control Systems," 8198 IEEE Transactions on Software Engineering, March 17, 1991, No. 3, New York, US, pp. 241-257.
AT	Thomas Kunz, David J. Taylor, and James P. Black, "Poet: Target-System-Independent Visualizations of Complex Distributed Executions, <i>IEEE</i> , 1997, pp. 452-461.

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

AR Doug Kimelman and Dror Zernik, "On-the-Fly Topological Sort – A Basis for Interactive Debugging and Live Visualization of Parallel Programs," 8398 ACM Sigplan Notices, December 28, 1993, No. 12, New York, US, pp. 12-20.

AS Mikhail Auguston, "Building Program Behavior Models," Dept. of Computer Science, New Mexico State University, pp. 19-26.

AT Stephen Edwards, Luciano Lavagno, Edward A. Lee, et al., "Design of Embedded Systems: Formal Models, Validation, and Synthesis," Proceedings of the IEEE, Vol. 85, No. 3, March 1997, pp. 366-389.

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AR Pai Chou, Ross Ortega, Ken Hines, et al., "IPChinook: An Integrated IP-based Design Framework for Distributed Embedded Systems," pp. 44-49.

AS Pai Chou, Ken Hines, Kurt Partridge and Gaetano Borriello, "Control Generation for Embedded Systems Based on Composition of Modal Processes," pp. 46-53.

AT Pai H. Chou and Gaetano Borriello, "Synthesis and Optimization of Coordination Controllers for Distributed Embedded Systems," pp. 410-415.

EXAMINER DATE CONSIDERED